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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,594	10/29/2001	Stephen Y. Chou	600.426US2	3744

21186 7590 10/08/2003

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EXAMINER	
VARGOT, MATHIEU D	

ART UNIT	PAPER NUMBER
1732	

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
10/046,594	CHOU
Examiner	**Group Art Unit**
M. WARGOT	1732

—Th MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

P riod for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 10/29/01 & 7/31/02.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1 & 42-59 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1 & 42-59 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Atta hment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing R view, PTO-948

☐ Int rview Summary, PTO-413

☐ Notice of Informal Pat nt Application, PTO-152

☐ Other _____

Office Action Summary

1. Claims 57-59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 57 and 58 are indefinite in reciting "the pattern in the mask material" when in fact no mask material has been set forth previously. In claim 59, it should be clearly set forth that the "one layer of a multilayer film" is in fact constituted by the film that is deposited on the substrate in claim 1.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 42-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Napoli et al (col. 2, lines 6-15; col. 3, lines 13-36 and line 48; col. 4, lines 1-12) in view of European Patent Application 244,884.

Napoli et al discloses the basic claimed lithographic method for forming a pattern in a film carried on a substrate by urging a mold and a moldable surface on a substrate together to thereby imprint a pattern from the mold on the moldable surface, separating the mold and moldable surface and etching the pattern. Essentially, the primary reference fails to teach the improvement wherein the mold has a release material bonded thereto as set forth in the last three lines of claim 1. European -884 discloses this exact release material bonded to an inorganic mold so that polymers and

synthetic resins would be easily released therefrom. It certainly would have been obvious to have modified the mold of Napoli et al as taught by European -884 to facilitate the release of the patterned film from the mold. Napoli et al discloses polymers being deposited as the moldable surface--see column 3, lines 13-36. The disclosure at column 3, lines 13-36 would encompass the instant thermoplastic polymer and material which is flowable and then changed to non-flowing upon irradiation. The employment of a multilayered film, a sol or metal oxides and halides as the film would have been an obvious feature over the polymers of Napoli et al dependent on the exact final article desired. Concerning the substrate, see column 2, lines 6-15 of Napoli et al, wherein silicon, single crystal materials and surfaces which are clearly semiconductor surface materials are taught. Some of these, due to doping or other topographical features, would be composite substrates and/or multilayered.

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper tames extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1 and 42-59 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 5,772,905 in view of European Patent Application 244,884. Although the conflicting claims are not identical, they are not patentably distinct from each other because previously issued US Patent -905 sets forth essentially the same subject matter as recited in the instant claims, with the only major difference being the instant specifying the particular release material. As noted supra, European -884 teaches the instant release material being applied to a mold and it certainly would have been obvious to one of ordinary skill in the art to modify the process as claimed in -905 to employ the release material to facilitate mold release. It is submitted that any additional instant materials for the film and substrate which are not claimed in -905 are well known in the art and would have been obvious material selections for the corresponding structures in the claims of US Patent -905.

4. Claims 1 and 42-59 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 of U.S. Patent No. 6,309,580. Although the conflicting claims are not identical, they are not patentably distinct from each other because previously issued US Patent -580 sets forth essentially the same subject matter as recited in the instant claims, the chief difference being that -580 requires a pattern dimension of the mold to be

less than 200 nm. It certainly would have been obvious to one of ordinary skill in the art at the time of invention to have eliminated this feature if such were to be deemed unnecessary. It is submitted that any additional instant materials for the film and substrate which are not claimed in -580 are well known in the art and would have been obvious material selections for the corresponding structures in the claims of US Patent -580.

5. Claims 1 and 42-59 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-46 of copending Application No. 10/244,276 in view of European Patent Application 244,844. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of copending application -276 set forth the basic claimed process, the main difference being that the instant call for a specific release material with an inorganic linking group bonded to a molecular chain having release properties bonded to the mold features, whereas the claims of -276 are silent with respect to this feature, but do call for a general release agent in claims 8 and 9. As noted supra, European -884 teaches the instant release material being applied to a mold and it certainly would have been obvious to one of ordinary skill in the art to modify the process as claimed in -276 to employ the release material to facilitate mold release. The materials set forth for the moldable surface (ie, film), substrate and mold in both the instant application and -276 are essentially the same or obvious variants over each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Vargot whose telephone number is 703 308-2621.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

M. Vargot

September 29, 2003

M. Vargot

MATHIEU D. VARGOT
PRIMARY EXAMINER
GROUP 1300

9/29/03